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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/662,020 Filing Date: September 11, 2003

Appellant(s): SHIRIN ET AL.

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Technology Center 2100

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on January 16, 2007 appealing from the Office action mailed July 31, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

Claims 1, 3-14, 16-27, and 29-39 are pending in this application and were finally rejected in the Final Office Action mailed on July 31, 2006. Claims 2, 15, and 28 were called during this prosecution.

Claims 1, 3-14, 16-27, and 29-39 are the subject of this appeal.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

Art Unit: 2162

(6) Grounds of Rejections to be Reviewed on Appeal

The Appellant's statement of grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2003/0126265 Aziz et al., 7-2003

2004/0221038 Clarke JR. et al, 11-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims.

DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Application/Control Number: 10/662,020 Page 5

Art Unit: 2162

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1, 3-14, 16-27, and 29-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Aziz et al. (hereinafter "Aziz") (U.S. Patent Application Publication Number 2003/0126265) in view of Clarke Jr. et al. (hereinafter "Clarke") (U.S. Patent Application Publication Number 2004/0221038).

As per claim 1, Aziz et al. is directed to a method and teaches the limitations: "determining, by a grid establishment component, from a plurality of nodes a set of grid nodes to include in a resource grid, wherein each grid node provides zero or more resources" (Figure 2: CONTROL PLANE 206; Paragraph 0060 i.e., Control plane 206 is coupled by a SAN Control path, CPU Control path, and VLAN Control path to SAN switches 202, CPUs CPU1, CPU2, ... CPUn, and VLAN Switches 204, respectively; Paragraph 0058, i.e., The local computing grid 208 is composed of a large number of computing elements CPU1, CPU2, ... CPUn. In an exemplary embodiment, there may be 10,000 computing elements, or more; Figure 2: CPU1,

CPU2, and local computing grid 208; Paragraph 0075, i.e., A particular computing element may perform different roles as it is brought into and out of various VSFs); and

"establishing, by the grid establishment component, the resource grid" (Paragraphs 0051, i.e., Configuration and control of the computing elements and their associated networking and storage elements is performed by a supervisory mechanism that is not directly accessible through any of the computing elements in the computing grid. For convenience, in this document the supervisory mechanism is referred to generally as a control plane and may comprise one or more processors or a network of processors; Paragraph 0055, i.e., The control plane controls the internal topology of each VSF. The control plane can take the basic interconnection of computers, network switches and storage network switches described herein and use them to create a variety of server farm configurations; 0067 i.e., the computing grid includes an Idle Pool that comprises large number of computing elements that are kept in reserve. Computing elements from the Idle Pool may be assigned to a particular VSF for reasons such as increasing the CPU or memory capacity available to that VSF, or to deal with failures of a particular computing element in a VSF. When the computing elements are configured as Web servers, the Idle Pool serves as a large "shock absorber" for varying or "bursty" Web traffic loads and related peak processing loads; Paragraph 0065, i.e., Only the computing elements that run the control plane are physically connected to the control ports or interface of the devices in the grid. Devices in the computing grid (computers, SAN switches and VLAN switches) can only be

Art Unit: 2162

configured through such control ports or interfaces: and Paragraph 0066 i.e., Each computing element in a VSF is replaceable by any other computing element.),

"wherein establishing comprises:

configuring each grid node to enable that grid node to participate as part of the resource grid" (Paragraph 000055 i.e., *The control plane controls the internal topology of each VSF*. The control plane can take the basic interconnection of computers, network switches and storage network switches described herein and use them to create a variety of server farm configurations; and 0065 i.e., Only the computing elements that run the control plane are physically connected to the control ports or interface of the devices in the grid. Devices in the computing grid (computers, SAN switches and VLAN switches) can only be configured through such control ports or interfaces); and

"establishing one or more grid masters to manage access to the resources provided by the grid nodes, such that the resource grid formed by the grid nodes behaves as a single pool of resources accessible through the one or more grid masters" (Paragraph 0075, *A particular computing element may perform different roles* as it is brought into and out of various VSFs. For example, a computing element may act as a Web server in one VSF, and when it is brought into a different VSF, it may be a database server, a Web load balancer, a Firewall, etc.; Figure 3: LB/FIREWALL 302, and Paragraph 0083 i.e., Assume that the control plane is asked to construct a VSF, containing one load balancer/firewall

and two Web servers connected to a storage device on the SAN;

Paragraph 0085, i.e., The load balancer is configured by the control plane to know about CPUs B and C as the two Web servers it is supposed to load balance; and Paragraph 0062 i.e., Each of the Web servers may be selected from among CPU1, CPU2, etc., using mechanisms described further herein).

Aziz does not explicitly teach the limitations: "wherein each grid node has a facilitating agent operating thereon" and "wherein configuring a grid node to enable that node to participate as part of the resource grid comprises: deploying a grid participation module to the grid facilitation agent operating on the grid node; and instructing the grid participation agent to run the grid participation module on the grid node to enable the grid node to participate as part of the resource grid".

On the other hand Clarke teaches the limitations:

"wherein each grid node has a facilitating agent operating thereon" (Paragraph 0049, i.e., or they may be invasive, e.g., requiring installation of an agent on an IT resource. In one embodiment, the monitoring tools are used to post-process log files) and "wherein configuring a grid node to enable that node to participate as part of the resource grid comprises: deploying a grid participation module to the grid facilitating agent to run the grid participation module on the grid node to enable the grid node to participate as part of the resource grid" (Paragraph 0049, i.e., monitoring tools are deployed on potential grid resources to monitor application-level and server-level usage information such as: maximum, and minimum utilization, patterns of application demand, amount of available and required disk, memory, network bandwidth, etc. Tools

Art Unit: 2162

may be noninvasive, especially for those resources not part of any distributed computing environment, or they may be invasive, e.g., requiring installation of an agent on an IT resource. In one embodiment, the monitoring tools are used to post-process log files)" Note that the method and system of Clarke installs an software agent and said software agent is equivalent to the participation module of the claimed invention. The software component that installs said agent on the nodes of the method and system of Clarke is equivalent to the grid facilitating agent of the claimed invention.).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the method of Aziz with the feature of installing facilitation module/agent on each of node of a resource grid, as taught by Clarke, so that, in the resultant method, each grid node would have a facilitating agent operating on it. One would have been motivated to do so in order to configure elements of a distributed computing environment that takes into account broader ROI to determine what actions to take.

As per claim 3, Aziz teaches the limitations:

"determining which of the plurality of nodes has a grid facilitation agent operating thereon" (Aziz, Paragraphs 0061-0063 teaches plurality of nodes i.e., Each VSF is composed of a set of VLANs, a set of computing elements that are attached to the VLANs, and a subset of the storage available on the SAN that is coupled to the set of computing elements; and Paragraphs 0071 i.e., According to one embodiment, in between each transition, the computing element is powered down or rebooted. When

the computing element is powered back up, the computing element views a different portion of storage zone on the SAN; Paragraph 0072 i.e., In a preferred embodiment, the storage zones include a plurality of pre-defined logical blueprints that are associated with roles that may be assumed by the computing elements. Initially, no computing element is dedicated to any particular role or task such as Web server, application server, database server, etc. The role of the computing element is acquired from one of a plurality of pre-defined, stored blueprints, each of which defines a boot image for the computing elements that are associated with that role). Note that, in the method and system of Aziz, control plane (grid establishment component) determines which nodes would be in the grid by rebooting nodes and selecting a specific software (grid facilitation agent with grid participation module) to run on those nodes during the reboot process (Paragraph 0071-0072). Thus the method and system of Aziz et al., preempts the step of determining which of the plurality of nodes has a grid facilitation agent operating thereon.; and

"selecting those nodes as the grid nodes" (Paragraphs 0061-0062, i.e., Each VSF is composed of a set of VLANs, a set of computing elements that are attached to the VLANs, and a subset of the storage available on the SAN that is coupled to the set of computing elements; and Paragraphs 0071-0072).

Referring to claim 4, Aziz in view of Clarke teaches the limitations:

"determining by a grid establishment component, from a plurality of nodes, a set of grid nodes to include in a resource, wherein each grid mode provides zero or more

Art Unit: 2162

resources" (Aziz, Paragraphs 0061-0063 and Paragraphs 0071-0072. See the references made with respect to claim 3.);

"establishing by the grid establishment component, the resource grid, wherein establishing comprises" (Aziz, Paragraph 0061-0062 and 0071-0072)

"configuring each grid node to enable that grid node to participate as part of the resource grid" (Clarke Paragraph 0049 i.e., *monitoring tools are deployed on potential grid resources* to monitor application-level and server-level usage information such as: maximum, and minimum utilization, patterns of application demand, amount of available and required disk, memory, network bandwidth, etc. Tools may be noninvasive, especially for those resources not part of any distributed computing environment, or they may be invasive, e.g., requiring installation of an agent on an IT resource. In one embodiment, the monitoring tools are used to post-process log files; Note that the method and system of Clarke installs an software agent and said software agent is equivalent to the participation module of the claimed invention. The software component that installs said agent on the nodes of the method and system of Clarke is equivalent to the grid facilitating agent of the claimed invention; and Aziz, Paragraphs 0061-0062 and Paragraph 0071-0072)

"wherein configuring a grid node to enable that grid node to participate as part of the resource grid comprises:

causing the grid node to execute a grid facilitation agent thereon" (Aziz, Paragraphs 0061-0062 and Paragraphs 0071-0072; Refer to the cited references with respect to claim 3);

Art Unit: 2162

"deploying a grid participation module to the grid facilitation agent executing on the grid node" (Aziz, Paragraphs 0061-0062 and Paragraphs 0071-0072; Refer to the cited references with respect to claim 3); and

"instructing the grid facilitation agent to run the grid participation module on the grid node to enable the grid node to participate as part of the resource grid" (Aziz, Paragraphs 0061-0062 and Paragraphs 0071-0072; Refer to the cited references with respect to claim 3); and

"establishing one more grid masters to manage access to the resources provided by the grid nodes, such that the resource grid formed by the grid nodes behave as a single pool of resources accessible through the one or more grid masters" (Aziz, Paragraph 0075, i.e., A particular computing element may perform different roles as it is brought into and out of various VSFs. For example, a computing element may act as a Web server in one VSF, and when it is brought into a different VSF, it may be a database server, a Web load balancer, a Firewall, etc.; Figure 3: LB/FIREWALL 302, and Paragraph 0083 i.e., Assume that the control plane is asked to construct a VSF, containing one load balancer/firewall and two Web servers connected to a storage device on the SAN).

As per claim 5, Aziz teaches the limitations:

"causing the grid node to reboot using an operating system image obtained from a component separate from the grid node, wherein the operating system image comprises the grid facilitation agent" (Paragraph 0071, i.e., the computing element is powered down or rebooted " and "a bootable image of the operating system").

As per claim 6, Aziz teaches the limitations:

"instructing the grid node, via a privileged port of the grid node" (Paragraph 0065, i.e., *Devices can only be configured through such control ports or interfaces*), "to reboot using an operating system image obtained from a component separate from the grid node" (Paragraph 0065, i.e., *When a computing element is powered back up, a different portion of storage zone on the SA*"), "wherein the operating system image comprises the grid facilitation agent" (Paragraphs 0071 and 0065).

As per claim 7, Aziz teaches the limitations:

"determining to which of the plurality of nodes the grid establishment component has access to a privileged port" (Paragraph 0065, i.e., *control ports*); and "selecting those nodes as the grid nodes" (Paragraph 0065, i.e., *Only the computing elements that run the control plane are physically connected to the control ports or interface of the devices in the grid*).

As per claim 8, Aziz in view of Clarke teaches the limitations:

"deploying a grid facilitation agent to an operating system running on the grid node" (Aziz, Paragraphs 0061-0062 and Paragraphs 0071-0072 and Clarke Paragraph 0049, i.e., monitoring tools are deployed on potential grid resources to monitor application-level and server-level usage information such as: maximum, and minimum utilization, patterns of application demand, amount of available and required disk, memory, network bandwidth, etc. Tools may be noninvasive, especially for those

resources not part of any distributed computing environment, or they may be invasive, e.g., requiring installation of an agent on an IT resource. In one embodiment, the monitoring tools are used to post-process log files); Note that the method and system of Clarke installs an software agent and said software agent is equivalent to the participation module of the claimed invention. The software component that installs said agent on the nodes of the method and system of Clarke is equivalent to the grid facilitating agent of the claimed invention);

"instructing the operating system to run the grid facilitation agent on the grid node" (Aziz, Paragraphs 0061-0062 and Paragraphs 0071-0072, and Clarke Paragraph 0049);

As per claim 9, Aziz teaches the limitations:

"determining, for each of the plurality of nodes, whether the grid establishment component has sufficient privileged access to the operating system running on that node to deploy the grid facilitation agent to that operating system" (Paragraphs 0061-0062, i.e., The subset of the storage available on the SAN is referred to as a SAN Zone and is protected by the SAN hardware from access from computing elements that are part of other SAN zones. Preferably, VLANs that provide non-forgeable port identifiers are used to prevent one customer or end user from obtaining access to VSF resources of another customer or end user; and Paragraphs 0071-0072); and

"in response to a determination that the grid establishment component has sufficient privileged access to that operating system, selecting that node as one of the grid nodes" (Paragraphs 0061-0062 and Paragraphs 0071-0072, i.e., *Initially, no*

Art Unit: 2162

computing element is dedicated to any particular role or task such as Web server, application server, database server, etc. The role of the computing element is acquired from one of a plurality of pre-defined, stored blueprints, each of which defines a boot image for the computing elements that are associated with that role).

As per claim 10, Aziz teaches the limitation:

"wherein determining comprises: receiving a set of information from an administrator that specifies the set of grid nodes" (Paragraphs 0052-0053, i.e., The control plane is implemented on a completely independent set of computing elements assigned for supervisory purposes, such as one or more servers that may be interconnected in a network or by other means).

As per claim 11, Aziz teaches the limitation:

"wherein establishing the resource grid is implemented by the grid establishment component without user intervention" (Paragraph 0055, i.e., *The control plane controls* the internal topology of each VSF. The control plane can take the basic interconnection of computers, network switches and storage network switches described herein and use them to create a variety of server farm configurations).

As per claim 12, Aziz teaches the limitation:

"wherein establishing one or more grid masters comprises: establishing the grid establishment component as a grid master" (Paragraphs 0051-0055, i.e., *control plane* and Paragraph 0075, i.e., *web load balancer*).

Art Unit: 2162

As per claim 13, Aziz teaches the limitation:

"wherein establishing one or more grid masters comprises: establishing at least one of the grid nodes as a grid master "(Paragraphs 0051-0055, i.e., *control plane* and Paragraph 0075, i.e., *web load balance*").

Claims 14 and 27 are rejected on the same basis as claim 1.

Claims 16 and 29 are rejected on the same basis as claim 3.

Claims 17 and 30 are rejected on the same basis as claim 4.

Claims 18 and 31 are rejected on the same basis as claim 5.

Claims 19 and 32 are rejected on the same basis as claim 6.

Claims 20 and 33 are rejected on the same basis as claim 7.

Claims 21 and 34 are rejected on the same basis as claim 8.

Claims 22 and 35 are rejected on the same basis as claim 9.

Claims 23 and 36 are rejected on the same basis as claim 10.

Claims 24 and 37 are rejected on the same basis as claim 11.

Claims 25 and 38 are rejected on the same basis as claim 12.

Claims 27 and 39 are rejected on the same basis as claim 13.

(10) Response to Arguments

Discussion of the Rejection of claims 1 and 4

Referring to claim 1, Appellant argued that such a method is neither disclosed not suggested by Aziz. Instead, Aziz teaches a method for logically partitioning various components of a system into virtual server farms (Appeal Brief, Page 9 Lines 3-4). In response, it is pointed out that, to the contrary of said argument, Aziz teaches a grid computing system as "computing grid" (Aziz, Abstract, i.e., Methods and apparatus providing, controlling and managing a dynamically sized, highly scalable and available server farm are disclosed. A Virtual Server Farm (VSF) is created out of a wide scale computing fabric ("Computing Grid") which is physically constructed once and then logically divided up into VSFs for various organizations on demand; Paragraph 0025, i.e., FIG. 2 is a block diagram of one configuration of an extensible computing system 200 that includes a local computing grid; Aziz, Paragraph 0049, i.e., According to one embodiment, a wide scale computing fabric ("computing grid") is provided. The computing grid may be physically constructed once, and then logically partitioned on demand. A part of the computing grid is allocated to each of a plurality of enterprises or organizations. Each organization's logical portion of the computing grid is referred to as a Virtual Server Farm (VSF)) and management of computing resources in said computing grid (Paragraphs 0064, 0051, i.e., Configuration and control of the computing elements and their associated networking and storage elements is performed by a supervisory mechanism that is not directly accessible through any of the computing elements in the computing grid). Additionally, the secondary reference (i.e., Clarke JR) teaches a system of computing grid and management of computing resources in said

computing grid (Clarke Paragraph 0023, i.e., It is thus an object of the present invention to provide a method and system for configuring elements of a distributed computing system such as a grid--e.g., determining which resources should be part of the grid, or which tasks should be added to a run queue, based on an evaluation of predicted ROI).

In addition, Appellant argued that note that unlike that grid nodes of claim 1, none of the computer elements of (which the Examiner appears to be interpreting to be a node) in a VSF have grid facilitation agent operating thereon (Appeal Brief, Page 10 Lines 8-10) and None of this software can be reasonably interpreted a grid facilitating agent that is called upon during grid establishment time to help with the grid establishment process (Appeal Brief, Page 10 Lines 14-15). In response to the first part of said arguments, it is pointed out that Aziz's system is a grid computing system (Note Abstract of Aziz, i.e., Methods and apparatus providing, controlling and managing a dynamically sized, highly scalable and available server farm are disclosed. A Virtual Server Farm (VSF) is created out of a wide scale computing fabric ("Computing Grid")) and each computing devices (i.e., Figure 2: CPU1, CPU2, and local computing grid 208) nodes of said grid.

In order to address the limitation of claim 1 which recites deploying grid participation module to the grid facilitation agent operating on the grid node and instructing the grid facilitating agent to run the grid participation module on the grid node to enable the grid to participate as part of the resource grid, the systems and methods of Aziz and Clarke are combined under 35 U.S.C. 103. The control plane of Aziz is equivalent to the grid establishment component of the claimed invention (i.e., Paragraphs 0064, 0051, i.e., Configuration and control of the computing elements and

Page 19

Art Unit: 2162

their associated networking and storage elements is performed by a supervisory mechanism that is not directly accessible through any of the computing elements in the computing grid. For convenience, in this document the supervisory mechanism is referred to generally as a control plane and may comprise one or more processors or a network of processors; Paragraph 0055, i.e., The control plane controls the internal topology of each VSF. The control plane can take the basic interconnection of computers, network switches and storage network switches described herein and use them to create a variety of server farm configurations). The software component that installs an agent on the nodes of the system of Clarke is equivalent to the grid facilitating agent and said agent on the nodes of Clarke is equivalent to the grid participation module of the claimed invention. Paragraph 0049 of Clark recites monitoring tools are deployed on potential grid resources to monitor applicationlevel and server-level usage information such as: maximum, and minimum utilization, patterns of application demand, amount of available and required disk, memory, network bandwidth, etc. Tools may be noninvasive, especially for those resources not part of any distributed computing environment, or they may be invasive, e.g., requiring installation of an agent on an IT resource.

As such, the combination of Aziz in view of Aziz teaches establishing a computing grid and nodes in said grid by way of a grid establishing component (i.e., Control Plane of Aziz) and Clark teaches the grid participation module and the grid facilitation agent. Particularly note that by installing an agent (i.e., grid participation module) on a node of the grid system of Aziz in view of Clarke, said node becomes part

Art Unit: 2162

of the computing grid, that is, enabling the grid to participate as part of the resource grid. Therefore, Aziz in view of Clarke teaches all the limitations of claim 1.

On Page 12 of the Appeal Brief, Appellant argued that Unlike the grid facilitation agent of claim 1, Clarke's agent dose not interact with any grid establishment component that is establishing a resource, and it does not participate in any way in the grid establishment process. Clarke's agent certainly does not receive any instructions during grid establishment time to run a grid participation module on a grid node to enable that grid node to participate as part of a resource grid (Appeal Brief, Page 12 Lines 9-14). In response, it reminded again that grid establishment component is taught by Aziz and the grid participation module and the grid facilitation agent are taught by Clarke. The grid establishment component of Aziz sends instructions on how to configure each node of the computing grid (i.e., Aziz Paragraphs 0051, i.e., Configuration and control of the computing elements and their associated networking and storage elements is performed by a supervisory mechanism that is not directly accessible through any of the computing elements in the computing grid. For convenience, in this document the supervisory mechanism is referred to generally as a control plane and may comprise one or more processors or a network of processors; and; and Paragraph 0067 i.e., Computing elements from the Idle Pool may be assigned to a particular VSF for reasons such as increasing the CPU or memory capacity available to that VSF, or to deal with failures of a particular computing element in a VSF. When the computing elements are configured as Web servers, the Idle Pool serves as a large "shock absorber" for varying or "bursty" Web traffic loads and related peak processing loads; Paragraph 0065, i.e., Only the computing elements that

Art Unit: 2162

run the control plane are physically connected to the control ports or interface of the devices in the grid). Said disclosure of Aziz clearly teaches that the grid establishment component of Aziz sends instructions on how to configure each node of the computing grid. Therefore, in the combination of the systems of Aziz and Clarke, configuration instructions would be sent from the control plane (i.e., grid establishment component of the claimed invention) to the software component that installs an agent/tool (i.e., the grid facilitating agent of the claimed invention) on the nodes of the combined system of Aziz in view of Clarke, thereby making said node of the combined system of Aziz in view of Clarke become part of the computing grid, that is, enabling the grid to participate as part of the resource grid.

Furthermore, Appellant argued that *There is nothing in Clarke that discloses that monitoring tools are in any way aware of a resource grid* (Appeal Brief, Page 12 Lines 23-25). In response, it is point out that making either nodes or agents **aware of a resource grid** is not recited in the claim and, as such, said argument is moot. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., making either nodes or agents ware of a resource grid) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As regards to the arguments, which recite *There is nothing in Clarke that*discloses that monitoring tools are run as part of a resource grid management process.

Further, there is nothing in Clarke that discloses execution of the monitoring tools

enables a grid node to participate as part of a resource grid (Appeal Brief, Page 12 Line 20 to Page 13 Line3) and Clarke does not disclose a grid facilitation agent operating on each grid node. Clarke also dose not disclose configuring a grid node (during a resource grid establishment) by deploying a grid participating module to a grid facilitating agent operating on a grid node, and instructing the grid facilitation agent to run grid participating module on the grid node to enable the grid node to participate as part of a resource grid, Appellant is advised to review the detailed response above of the Examiner regarding the limitations of claim 1.

Referring to claim 4, Appellant argued that *The method of claim 4 is similar in substance to claim 1, except that in claim 4, the grid nodes do not initially have a grid facilitation agent operating thereon* (Appeal Brief, Page 15 Lines 16-17) and *Such a method is neither disclosed nor suggested by Aziz. As argued above in connection claim 1, in Aziz, none of the computing elements (which the examiner appears to be interpreting to be a node) in a VSF has a grid facilitating agent operating thereon (Appeal Brief, Page 16 Lines 16-21). Said argument has been amply addressed in response to the arguments of the Appellant with respect to claim 1 and would not be repeated herewith. Any other arguments with respect to claim 4 have also been addressed in the responses to the Appellant's argument concerning claim 1.*

In conclusion, it is herewith repeated that claims 1, 3-14, 16-27, and 29-39, under 35 U.S.C. 103, are unpatentable over Aziz in view of Clarke.

Related Proceeding(s) Appendix (11)

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this examiner's answer.

Respectfully Submitted,

Dennis Myint

Examiner

AU-2162

March 20, 2007

Conferences:

SUPERVISORY PATENT EXAMINER

Eddie Lee (Appeals Practice Specialist)

John Breene (SPE AU-2162)

TECHNOLOGY CENTER 2100